

Claims

1. A deflection yoke comprising a saddle-shaped horizontal deflection coil, a saddle-shaped vertical deflection coil, an insulating frame, and a correction coil, the saddle-shaped horizontal deflection coil and the saddle-shaped vertical deflection coil being provided along, respectively, an inner and an outer surface of the insulating frame which insulates the deflection coils, and the correction coil being provided above the outer surface of an electron gun side bend portion of the deflection coils, wherein

a setting member is provided in a fixed positional relation with respect to the insulating frame on the electron gun side and behind the bend portion of the deflection coils, and the correction coil is set at a fixed position on a wall surface of the setting member which faces the screen and above the outer surface of the electron gun side bend portion.

2. The deflection yoke of Claim 1 wherein

the setting member and the insulating frame are integrally formed.

2-1-A 3. The deflection yoke of Claim 1 or 2 wherein
the correction coil is structured to be freely
detachable in relation to the setting member.

5 4. The deflection yoke of Claim 1 or 2 wherein
the correction coil has (a) a core whose leg portion
points in a direction toward the electron gun side bend
portion of the deflection coil, (b) a bobbin which covers
the core and is conductive wire wound therearound, and (c)
10 a fixing member in a substantially fixed relation to the
core; and

the correction coil is positioned by the fixing
member being fixed to the setting member.

15 5. The deflection yoke of Claim 4 wherein
the setting member has a notch, and
the fixing member has a claw portion which is
interlocked with the notch.

20 6. The deflection yoke of Claim 5 wherein
the setting member has a plate form,
the notch is provided on an edge of the setting member,
and
a portion of the setting member in which the notch

is provided is formed so as to have a narrower width than an electron gun side back vicinity of the electron gun side bend portion.

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The deflection yoke of Claim 4 wherein

the fixing member has a protruding portion which is inserted in an insertion aperture provided in the setting member.

10 8. The deflection yoke of Claim 4 wherein

the fixing member has a fitting portion which is fitted into a slot provided in the setting member.

9. The deflection yoke of Claim 4 wherein

15 a flange portion is provided at both ends of the bobbin, an edge of each flange portion contacts the setting member, and positioning of the correction coil is performed in relation to the setting member.

20 10. The deflection yoke of Claim 4 wherein

the core is a U-shaped core, both of whose leg portions point in the direction toward the electron gun side bend portion of the deflection coil, and the bobbin covers substantially a center portion of the U-shaped core.

11. The deflection yoke of Claim 4 wherein

the core is an E-shaped core, each of whose leg portions points in the direction toward the electron gun side bend portion of the deflection coil, and one bobbin covers each of the leg portions of the E-shaped core.

12. The deflection yoke of Claim 4, wherein

the core includes a U-shaped core both of whose leg portions point in the direction toward the electron gun side bend portion of the deflection coil, and an I-shaped core which has one end pointing towards the electron gun side bend portion direction of the deflection coil; and one bobbin covers each of substantially a center portion of the U-shaped core, and the I-shaped core.

13. The deflection yoke of Claim 1 or 2 wherein

the correction coil generates a magnetic field which corrects at least one of mis-convergence according to coma residual, and vertical mis-convergence which occurs in a side beam of an in-line type electron gun.

14. The deflection yoke of Claim 13 wherein

the correction coil has two conductive wires, and

both mis-convergence according to coma residual and vertical mis-convergence which occurs in a side beam of an in-line type electron gun are corrected by magnetic fields which are generated respectively by the two
5 conductive wires and controlled.

15. A color picture tube having (a) an outer envelope composed of a front panel formed with a phosphor screen surface on an inner surface, and a funnel, (b) an electron
10 gun provided in a neck portion of the funnel, and (c) a deflection yoke mounted on an outer surface of the funnel, wherein

the deflection yoke comprises a saddle-shaped horizontal deflection coil, a saddle-shaped vertical
15 deflection coil, an insulating frame, and a correction coil, the saddle-shaped horizontal deflection coil and the saddle-shaped vertical deflection coil being provided along, respectively, an inner and an outer surface of the insulating frame which insulates the deflection coils, and
20 the correction coil being provided above the outer surface of an electron gun side bend portion of the deflection coils, wherein

a setting member is provided in a fixed positional relation with respect to the insulating frame on the

electron gun side and behind the bend portion of the deflection coils, and the correction coil is set at a fixed position on a wall surface of the setting member which faces the screen and above the outer surface of the electron gun side bend portion.

16. The color picture tube of Claim 15 wherein the setting member and the insulating frame are integrally formed.

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add Art 17. The color picture tube of Claim 15 or 16 wherein the correction coil is structured to be freely detachable in relation to the setting member.

15 18. The color picture tube of Claim 15 or 16 wherein the correction coil has (a) a core whose leg portion points in a direction toward the electron gun side bend portion of the deflection coil, (b) a bobbin which covers the core and is conductive wire wound therearound, and (c)
20 a fixing member in a substantially fixed relation to the core; and

the correction coil is positioned by the fixing member being fixed to the setting member.

19. The color picture tube of Claim 15 or 16 wherein
the correction coil generates a magnetic field which
corrects at least one of mis-convergence according to coma
residual, and vertical mis-convergence which occurs in a
5 side beam of an in-line type electron gun.

20. The color picture tube of Claim 19 wherein
the correction coil includes two conductive wires,
and both mis-convergence according to coma residual and
10 vertical mis-convergence which occurs in a side beam of
an in-line type electron gun are corrected by magnetic
fields which are generated respectively by the two
conductive wires and controlled.

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